

REMARKS

In the Office Action dated October 14, 2011, the Examiner rejects claims 1-3, 5-9, 11-12, 17 and 25 under 35 U.S.C. § 112, second paragraph, as being indefinite and rejects claims 1-3, 5-9, 11-15, 17-23 and 25 under 35 U.S.C. § 103(a). With this Amendment, claims 1, 13 and 19 are amended. No claims are added or canceled. After entry of this Amendment, claims 1-3, 5-9, 11-15, 17-23 and 25 remain pending in the application. Reconsideration of the application as amended is respectfully requested.

Response to rejections under 35 U.S.C. §112

Claims 1-3, 5-9, 11-12, 17 and 25 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicant regards as the invention.

The Examiner rejects claim 1 for lacking sufficient antecedent basis for the limitation of “each movement distance sensor must move its associated additional adjustable component.” Claim 1 is amended to remove this limitation and to recite a controller that calculates the distance and direction each additional adjustable component must move to achieve the new position. This amendment is supported by the specification at least at paragraphs [0047]-[0048]. With this Amendment, Applicant submits that the rejection of claim 1 and its dependent claims 2-3, 5-9 and 11-12 has been overcome.

The Examiner rejects claims 5, 11, 17 and 25 for reciting that an interlocked state can occur when the position of the shift lever is in neutral. In response, Applicant has amended claims 1, 7 (via the amendment to claim 1), 13 and 19, from which claims 5, 11, 17 and 25 respectively depend, to clarify the determination of the interlocked and non-interlocked states. For example, claim 1 is amended to recite a controller configured to receive vehicle signals and determine at least an interlocked state, wherein the vehicle is not considered to be moving, and a non-interlocked state, wherein the vehicle is considered to be moving, from the vehicle signals. Applicant submits that the controller of claim 1 is consistent with claim 5, which recites that the interlocked state occurs, *inter alia*, when the position of the shift lever is neutral. Specifically, the controller can determine at least an interlocked state, wherein the vehicle is considered not to be moving, when the position of the shift lever is neutral, despite the possibility pointed out by the Examiner that a vehicle could move while the position of a shift lever is neutral. Similar clarifying amendments are made to

claims 13 and 19. These amendments are supported by the Specification at least at paragraph [0045]. With these amendments, Applicant submits that the rejections of claims 5, 11, 17 and 25 have been overcome.

Response to rejections under 35 U.S.C. §103(a)

The Examiner rejects claims 1, 3, 5, 7, 9, 11, 13, 15, 17, 19-20, 23 and 25 under 35 U.S.C. §103(a) as being unpatentable over Judic et al. (U.S. 5,812,399) in view of Ohki et al. (U.S. Publication 2002/0033297). Applicant disagrees with the Examiner's rejections and respectfully submits that the Examiner has failed to make out a *prima facie* case of obviousness.

The Examiner groups independent claims 1, 13 and 19 into a single rejection, using the language of claim 1 as a basis for rejecting the features recited in the remaining claims. Applicant notes that claims 13 and 19 differ in scope from claim 1, and each is deserving of independent examination on the merits. However, for coherence with the Examiner's rejections, Applicant focuses the argument below with primary reference to claim 1 and its dependent claims.

Claim 1 as amended recites an automatic driving position adjustment system for use in a vehicle, comprising (a) a first adjustable component adjustable by an operator, the first adjustable component configured to adjust in a plurality of bi-directions; (b) a plurality of additional adjustable components each configured to adjust in a plurality of bi-directions; (c) a controller configured to receive vehicle signals and determine at least an interlocked state, wherein the vehicle is not considered to be moving, and a non-interlocked state, wherein the vehicle is considered to be moving, from the vehicle signals; (d) a plurality of movement-distance sensors, one movement-distance sensor associated with each bi-direction that the first adjustable component can move, wherein the movement-distance sensors each generates an output signal indicative of a distance and direction moved to achieve a new position of the first adjustable component, wherein the controller, when in the interlocked state, is responsive to the output signal of the movement-distance sensors and is configured to compute a new position of each of the plurality of additional adjustable components on the basis of the distance and direction moved to achieve the new position of the first adjustable component, and based on each new position, calculates the distance and direction each additional adjustable component must move to achieve the new position, and wherein the controller,

when in the non-interlocked state, is not responsive to the output signal of the at least one movement-distance sensor; and (e) a motor associated with each bi-direction of each adjustable component, wherein the controller actuates each of the motors associated with the additional adjustable components when in the interlocked state, to move the additional adjustable components in the calculated direction the calculated distance to obtain the new positions.

Applicant submits that Judic et al. does not disclose at least the claimed feature of (b), a plurality of additional adjustable components each configured to adjust in a plurality of bi-directions. The Examiner appears to regard the seat proper 4 and the seat back 7 shown in FIG. 1 as separate additional adjustable components, which collectively comprise the claimed plurality of additional adjustable components. Applicant notes that the Examiner points to only a single bi-direction S corresponding to seat proper 4. However, even assuming that the seat proper 4 can adjust in a plurality of bi-directions, Judic et al. at most discloses one out of the claimed plurality of additional adjustable components. The Examiner points to the seat back 7 and states that the inclination Q of the seat back 7 can have a plurality of different values. (Office Action, pg. 4.) However, claim 1 requires that each additional adjustable component be configured to adjust in a plurality of bi-directions. Although the inclination Q of the seat back 7 can have a plurality of different values, the seat back 7 is clearly configured to adjust only in a single bi-direction S. For this reason, the seat back 7 cannot be an additional component as recited in claim 1, and Judic et al. therefore fails to disclose the claimed plurality of additional adjustable components.

Judic et al. further does not disclose at least the claimed feature of (d), a plurality of movement-distance sensors, one movement-distance sensor associated with each bi-direction that the first adjustable component can move, wherein the movement-distance sensors each generates an output signal indicative of a distance and direction moved to achieve a new position of the first adjustable component. The Examiner points to the position sensors described at col. 2, line 40 – col. 3, line 35 of Judic et al. as disclosing movement-distance sensors. However, Judic et al. explains that the parameters P, Q, R and S relate to absolute positions of the related components 1, 7, 5 and 4, respectively (*see, e.g.* col. 2, ll. 40-44, and FIG 1). The “sensors are organized, in association with an appropriate circuit 26, to generate electrical magnitudes p, q, r, and s” ...“in order to know the real value of each of the parameters P, Q, R, and S” at any instant. (Col. 6, ll. 16-23). Therefore, the position

sensors of Judic et al. generate an output indicative of an absolute position of the components 1, 4, 5 and 7. The claimed movement-distance sensors, in contrast, generate an output signal indicative of a distance and direction moved to achieve a new position of the first adjustable component.

Because Judic et al. does not disclose the claimed movement-distance sensors that each generate an output signal indicative of a distance and direction moved to achieve a new position of the first adjustable component, Judic et al. likewise does not disclose the claimed controller configured to compute a new position of each of the plurality of additional adjustable components on the basis of the distance and direction moved to achieve the new position of the first adjustable component. Judic et al. explains that control interface 23 slaves any command that varies the parameter P (*i.e.*, the absolute longitudinal position of base 1) to generate electrical magnitudes to excite motors responsible for adjusting the other parameters Q, R and S. (Col. 5, ll. 55-65). The controller 23 is not configured to compute a new position of the corresponding components 7, 5 and 4, respectively, and does not adjust the parameters Q, R and S on the basis of a distance and direction moved to achieve a new position of the base 1.

In connection with the foregoing, Applicant further submits that Judic et al. does not disclose at least the feature (c), a motor associated with each bi-direction of each adjustable component, wherein the controller actuates each of the motors associated with the additional adjustable components when in the interlocked state, to move the additional adjustable components in the calculated direction the calculated distance to obtain the new positions. For example, as demonstrated above, Judic et al. discloses at most one additional adjustable component configured to adjust in a plurality of bi-directions. Because the seat back 7 is configured to adjust in a single bi-direction S, a single motor 12 is associated with the seat back 7 to generate its displacement. (Col 4, ll. 11-14). Therefore, the vehicle seat disclosed by Judic et al. lacks the claimed motor associated with each bi-direction of each adjustable component. Further, as demonstrated above, Judic et al. does not disclose the claimed controller configured to compute a new position of each of the plurality of additional adjustable components. Therefore, the control interface 23 of Judic et al. does not actuate each of the motors associated with the additional adjustable components to move the additional adjustable components in the calculated direction the calculated distance to obtain the new positions, as required of the controller recited in claim 1.

Applicant has reviewed the remaining art cited by the Examiner and submits that the cited references fail to cure the deficiencies in Judic et al.. Therefore, they do not suggest the claimed subject matter to one skilled in the art when combined with Judic et al. Because the cited references, either alone or in combination, fail to teach or suggest the features recited in claim 1, Applicant respectfully submits that claim 1 is allowable over the cited references.

Claim 13 is amended to recite an automatic driving position adjustment system for use in a vehicle, comprising: (a) a first adjustable component wherein the first component relates to the attitude of a driver and is movable by the driver in a plurality of bi-directions during a series of adjustment cycles; (b) a plurality of additional adjustable components each configured to move in a plurality of adjustment bi-directions; (c) movement-distance detecting means for detecting each distance and direction of the plurality of bi-directions that the first adjustable component is moved from its position during the previous adjustment cycle to its position in the current adjustment cycle; (d) control means for determining an interlocked state wherein the vehicle is not considered to be moving and a non-interlocked state wherein the vehicle is considered to be moving and, when in the interlocked state, computing a new position for each of the plurality of additional adjustable components on the basis of each distance and direction moved by the first adjustable component as detected by the movement distance detecting means and computing each direction and distance necessary to move each additional adjustable components to obtain the new position; and (e) drive means for moving the plurality of additional adjustable components the directions and associated distances to obtain the new position as computed by the control means. For the reasons set forth above in connection with the discussion of claim 1, Applicant submits that the cited references, either alone or in combination, fail to teach or suggest the features recited in claim 13. It is therefore respectfully submitted that claim 13 is allowable over the cited references.

Claim 19 is amended to recite a method for use in a vehicle to automatically adjust the position of a plurality of additional adjustable components in a plurality of adjustment bi-directions in response to the operator-actuated adjustment of a first adjustable component, comprising: (a) detecting each direction and an associated distance of operator-actuated adjustment for each of the plurality of bi-directions to achieve a new position of the first adjustable component; (b) determining an interlocked state wherein the vehicle is not

considered to be moving or a non-interlocked state wherein the vehicle is considered to be moving; (c) when the interlocked state is determined, computing a new position of each additional adjustable component corresponding to the new position of the first adjustable component, each new position requiring directions and associated distances of adjustment for each of the plurality of bi-directions that the plurality of additional adjustable components are to undergo on the basis of the detected adjustment of the first adjustable component; and (d) moving the additional adjustable components each direction and associated distance of adjustment required to obtain its new position. For the reasons set forth above in connection with the discussion of claim 1, Applicant submits that the cited references, either alone or in combination, fail to teach or suggest the features recited in claim 19. It is therefore respectfully submitted that claim 19 is allowable over the cited references.

With respect to claims 3, 9, 15 and 23, the Examiner relies on Judic et al. as disclosing that the controller of claim 1 is further configured to compute the distance and the direction to obtain the desired new position by multiplying a prescribed coefficient by the distance and the direction that the first adjustable component has moved. However, because the adjustment device of Judic et al. lacks a means to generate an output signal indicative of a distance and direction moved to achieve a new position of the first adjustable component, the control interface 23 cannot be configured to compute the distance and the direction to obtain the desired new position by multiplying a prescribed coefficient by the distance and the direction that the first adjustable component has moved. Applicant submits that the remaining references cited by the Examiner fail to cure this deficiency in Judic et al. For this reason, Applicant submits that the cited references fail to teach or suggest the features recited in claims 3, 9, 15 and 23. In addition, these claims are allowable based upon their dependence from allowable base claims.

Claims 5 and 11 depend from claim 1 to include each of the features recited therein. Claim 17 depends from claim 13 to include each of the features recited therein. Claims 20 and 25 depend from claim 19 to include each of the features recited therein. Applicant submits that the cited references fail to teach or suggest the features recited in these claims. In addition, these claims are allowable based upon their dependence from allowable base claims.

The Examiner rejects claims 2, 6, 8, 12, 14, 18 and 21-22 under 35 U.S.C. §103(a) as being unpatentable over Judic et al. in view of Ohki et al. (U.S. Publication 2002/0033297) and in further view of Tashiro et al. (U.S. 4,707,788).

With respect to claims 2, 8, 14 and 22, the Examiner acknowledges that the combination of Judic et al. and Ohki et al. does not disclose the recited feature wherein the additional adjustable components are selected from the group consisting of: a steering wheel having two movement-distance sensors, a right door mirror having two movement-distance sensors, a left door mirror having two movement-distance sensors, and an interior mirror having two movement distance sensors. Applicant submits that Tashiro et al. fails to cure this deficiency in the combination of Judic et al. and Ohki et al. As explained in Tashiro et al., the mirrors, for example, have “potentiometers or limit switches responsive to positions of moveable portions moved by the motors.” (Col. 2, ll. 65-68). The disclosed potentiometers or limit switches are responsive to the absolute positions of the moveable portions, in contrast to the claimed adjustable components having two movement-distance sensors. Because the cited references, either alone or in combination, fail to teach or suggest the features of claims 2, 8, 14 and 22, Applicant submits that these claims are allowable over the cited references. In addition, these claims are allowable based upon their dependence from allowable base claims.

With respect to claims 6, 12, 18 and 21, the Examiner relies on Tashiro et al. as disclosing the feature wherein the first adjustable component is a first mirror surface that moves through a range of angular positions when adjusted by an operator and the additional adjustable components include at least a second mirror surface that is adjustable through a range of angular positions, wherein the movement-distance sensor output is indicative of the change in the angular position of the first mirror surface. Again, because the cited references, either alone or in combination, fail to teach or suggest the claimed movement-distance sensor, Applicant submits that claims 6, 12, 18 and 21 are allowable over the cited references. In addition, these claims are allowable based upon their dependence from allowable base claims.

Conclusion

It is submitted that this Amendment has antecedent basis in the Application as originally filed, including the specification, claims and drawings, and that this Amendment does not add any new subject matter to the application. Reconsideration of the Application as

amended is requested. It is respectfully submitted that this Amendment places the Application in suitable condition for allowance; notice of which is requested.

If the Examiner feels that prosecution of the present Application can be expedited by way of an Examiner's amendment, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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